

REMARKS

Applicants thank the Examiner for the thorough consideration given the present application. Claims 1, 9-12, and 16, 17 and 19-34 are currently being prosecuted. The Examiner is respectfully requested to reconsider his rejections in view of the amendments and remarks as set forth below.

Rejection Under 35 USC §112, First Paragraph

Claims 1, 9-12, 16-18, 21, and 22 stand rejected under 35 USC §112, first paragraph as failing to comply with the written description requirement. This rejection is respectfully traversed.

In regard to claim 1, the Examiner points out that the embodiment which uses an elastomer in an emulsion does not involve a foamy solution. The Examiner makes reference to the embodiment to which the claims are now restricted. This is not understood since a restriction has not been applied in the present application. However, the Examiner is correct that claim 1 does not relate a foamy solution. Accordingly, Applicants have amended claim 1 to remove the word “foamable” in line 6. Accordingly, Applicants submit that claim 1 now matches the description of this embodiment in the specification.

In regard to claims 16 and 18, the term “butyl” has been changed to “butadiene” as suggested by the Examiner. Also, claim 18 has been cancelled. Claims 21 and 22 have been amended to remove “at least” also. Accordingly, Applicants submit that the rejection under 35 USC §112, first paragraph has now been overcome.

Rejection Under 35 USC §112, Second Paragraph

Claims 1, 9-12, 16-34 stand rejected under 35 USC §112, second paragraph as being indefinite. This rejection is respectfully traversed.

The Examiner points out that each of the independent claims define a foamed-to-unfoamed ratio. The Examiner believes that it is not clear whether this requires the claim to actually be in a foamed state or whether that it simply be foamable to this level. Applicants submit that these claims are not indefinite. The claimed foamable liquid is a highly mobile liquid. Thus, under use conditions, the liquid is foamable and has a certain volume which changes the cross-sectional area of the tire hollow irregularly in the circumferential direction. Thus, by the rotation of the tire, the foamable liquid is beat up and foamed to the claimed ratio v_2/v_1 . When the beating is stopped, the liquid is defoamed in a relatively short time, namely it is simply foamable to this level. Accordingly, Applicants submit that these claims are not indefinite.

Rejections Under 35 USC §103

Claims 1, 9-12, 16-18, and 23-26 stand rejected under 35 USC §103 as being obvious over the European Patent to Gerresheim et al (EP 735,420). This rejection is respectfully traversed.

The Examiner states that the references show a tire mounted on a rim to which a rubber latex material can be added. The composition is further thinned with water and includes dispersant, emulsifying agents and foam stabilizers. The Examiner states that it is a reasonable expectation that this material is a foamable

liquid emulsion. Applicants disagree with the Examiner's understanding of this reference.

It is clear from the reference that this material is used to seal punctures in tires. The puncture sealant such as this is a viscous liquid which cannot be foamable by the rotation of the tire. This is in contrast to the present claimed liquid which is a highly mobile liquid. Thus, the puncture sealant in the reference cannot be a foamable liquid as presently claimed. Further, there is no indication that the material acts as a noise damper in any case. There is no indication that there is sufficient material to change the cross-sectional area of the tire hollow during rotation. There is also no indication that the volume will cause the cross-sectional area to vary irregularly to reduce noise. Further, in regard to claim 17, there is no indication of the ratio of the foamed to unfoamed volume. Further, claim 17 now includes the limitation that the liquid damper stands in a lower part of the tire hollow and is not fully blocked. This is also not seen in the references. Accordingly, Applicants submit that independent claims 1 and 17 and the claims which depend therefrom are not obvious over this reference.

Claims 19-22 stand rejected under 35 USC §103 as being obvious over Hicks (USP 2,797,721). This rejection is respectfully traversed.

The Examiner points out that this reference shows a tire having 35-90% of a liquid tire ballast which can form a frothy liquid and can contain stabilizers and soaps. However, Applicants disagree that the present claims would be obvious over this reference.

Claims 19-20 state that the noise reducing system includes a noise damper. The liquid ballast used in the Hicks reference is never referred to as a noise damper. Further, the claims state that the noise damper is a foamable liquid under use conditions. While the reference does state that the air is whipped into the liquid to provide a compressible frothy liquid, it does not state that it is a foamable liquid under use conditions. Further, there is no indication that the frothy liquid changes the cross-sectional area of the tire hollow irregularly during rotating. In fact, if the tire is filled completely as shown in Figure 2 or nearly completely filled as shown in Figure 1, there would be little irregular change in the cross-sectional area. That is, the cross-sectional area will remain nearly the same when rotating.

Further, the reference does not disclose a specific range of the injection volume and the ratio of the foamed to unfoamed volume as described in these claims. Further, claims 19 and 20 now further describe that the injection volume is such that when the liquid damper stands in a lower part of the tire hollow, the tire hollow is not fully blocked, and a narrow part remains. Accordingly, Applicants submit that this rejection is also overcome.

Claims 27-30 and 31-34 stand rejected under 35 USC §103 as being obvious over Hicks in view of Gerresheim et al. This rejection is respectfully traversed.

These dependent claims depend from allowable independent claims 19 and 20 and accordingly, are also allowable over this combination of references. Even if

liquid into the tire, it still does not overcome the deficiencies of the primary reference as discussed above. Accordingly, Applicants submit that these claims are likewise allowable.

Conclusion

In view of the above remarks, it is believed that the claims clearly distinguish over the patents relied on by the Examiner, either alone or in combination. In view of this, reconsideration of the rejections and allowance of all the claims are respectfully requested.

Should there be any outstanding matters which need to be resolved in the present application, the Examiner is respectfully requested to contact the undersigned at the telephone number of the undersigned below to conduct an interview in an effort to expedite prosecution in connection with the present application.


Applicants hereby petition for a three month extension of time to April 27, 2004, within which to respond to the Office Action of October 27, 2003. The prescribed fee in the amount of \$950.00 is attached hereto.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No.

02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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